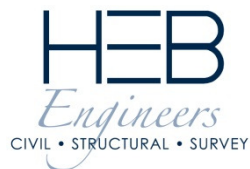




# Center Harbor – New Hampton Bridge #080/040

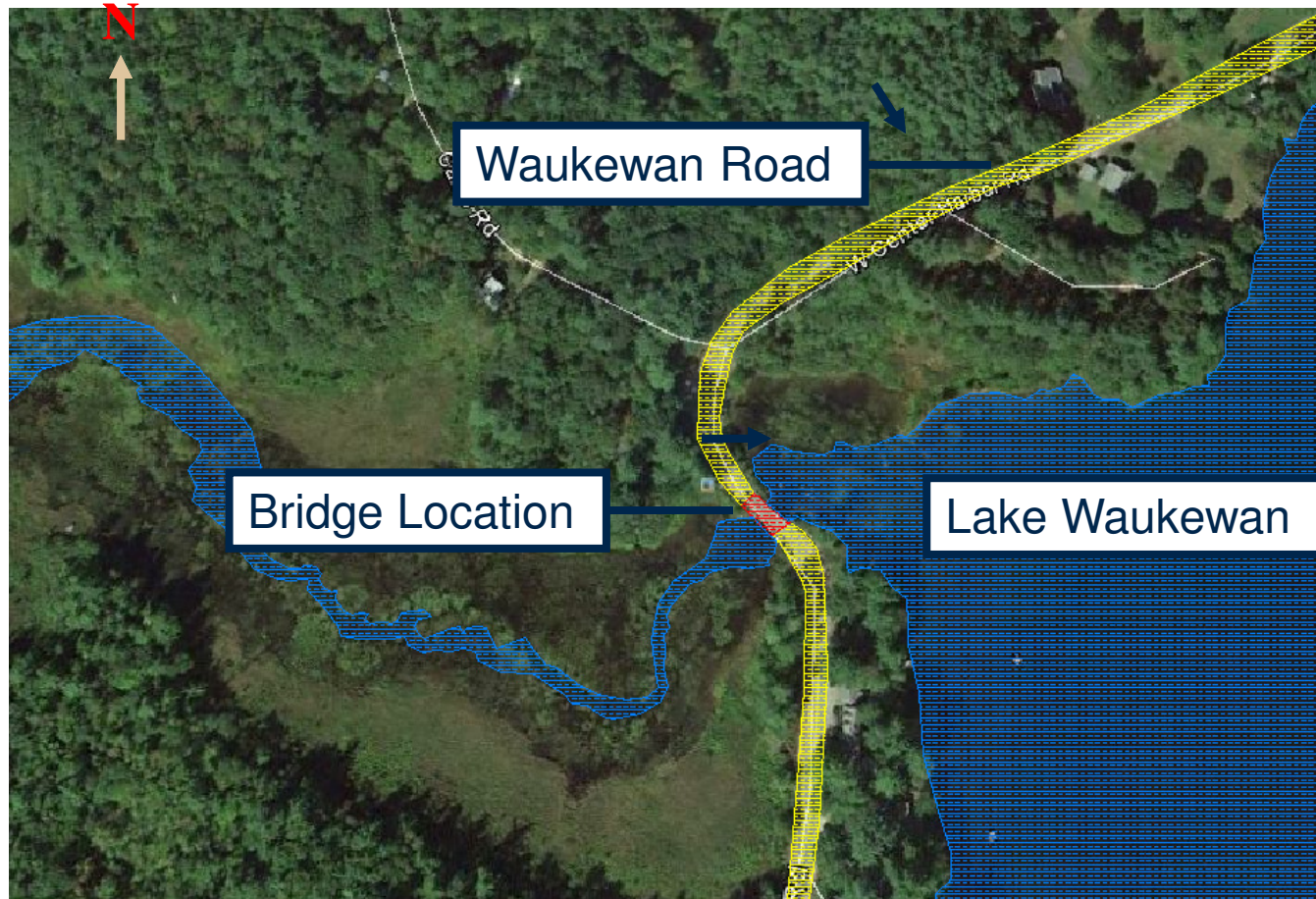
Waukewan Road over the Snake River

Third Public Informational Meeting  
September 27, 2016





# Bridge Location





# View looking towards Center Harbor (North)





# View looking towards New Hampton (South)





# View to the East from above





# View to the West from above





# View from Above





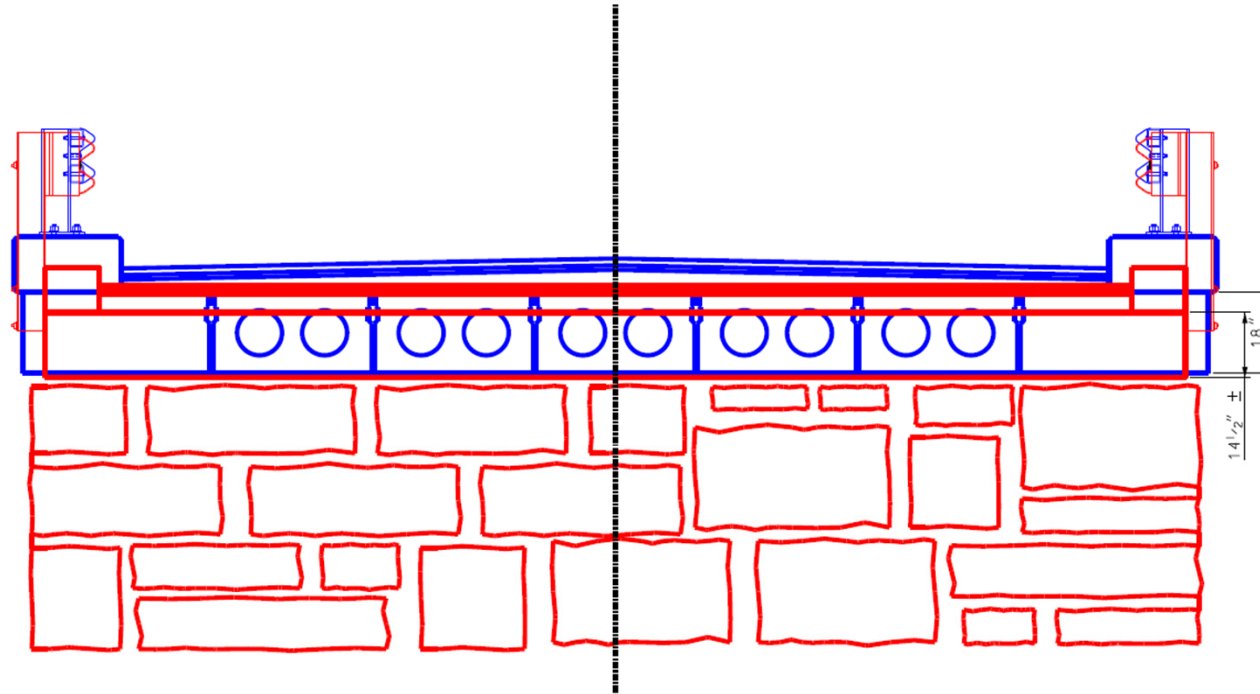
# Work Session Results

Work Session held on July 18, 2016

- A preferred alternative was selected.
- Maintains existing rail-to-rail width: 19'-4".
- Provides narrower curb-to-curb width: 18'-4"
- Slightly wider out-out width: 22'-4"
- Hydraulic opening slightly larger (higher)
- Road raised 6 to 8 inches at the bridge to accommodate deeper bridge.



# Preferred Alternative Bridge Section



— Existing

— Proposed



# Guardrail

- Existing:
  - W-Beam Guardrail
  - Steel posts bolted to top of curb on approach
  - Steel posts bolted to side of curb on bridge w/ wooden offset block
  - Wood posts and offset block along roadway
- Proposed:
  - W-Beam Guardrail
  - Steel posts bolted to top of curb on approach slab and bridge
  - Steel posts and synthetic offset block along roadway

# Curb Width

Existing 1'-0"



Proposed: 2'-0"





# Curb Reveal

Existing: 3"-5"



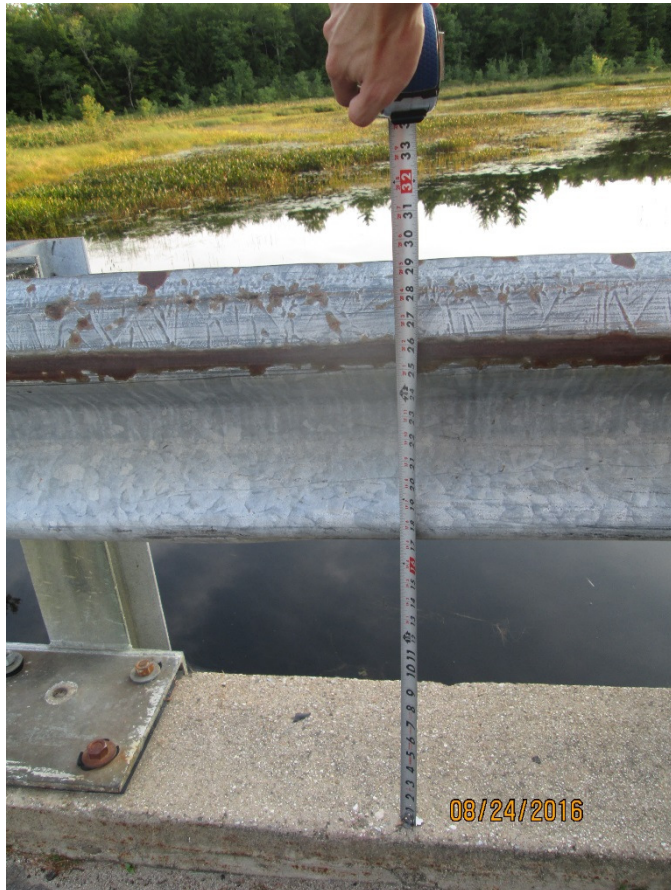
Proposed: 7" min.





# Bridge Rail Height Above Curb

Existing: 2'-5"



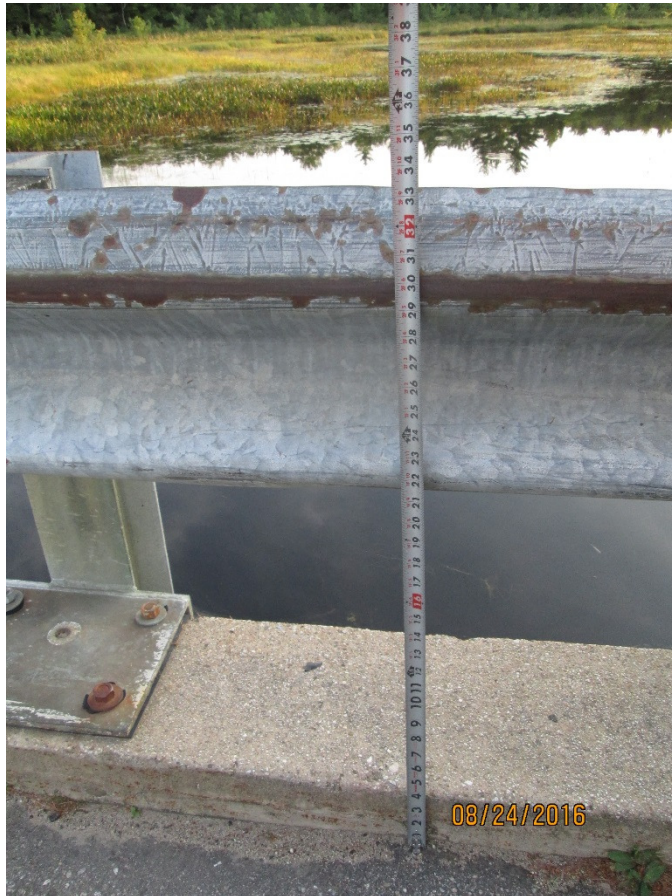
Proposed: 2'-0"





# Bridge Rail Height Above Pavement

Existing: 2'-9"



Proposed: 2'-7" (typical)





# Guardrail

Existing



Proposed



Note:

Picture of Bridge # 092/103

Piermont, NH on Barton Road

Showing similar proposed rail type



# Guardrail Terminal End Unit

- Existing guardrail terminates into the ground
  - Outdated technique, no longer used by NHDOT due to safety concerns
  - Has been proven to flip vehicles upon impact
- Proposed guardrail will terminate with a “SoftStop” unit
  - Tested to withstand vehicular impact
  - Energy absorbing
  - Meets MASH evaluation criteria
  - New preferred unit by NHDOT

# Guardrail Terminal End Unit

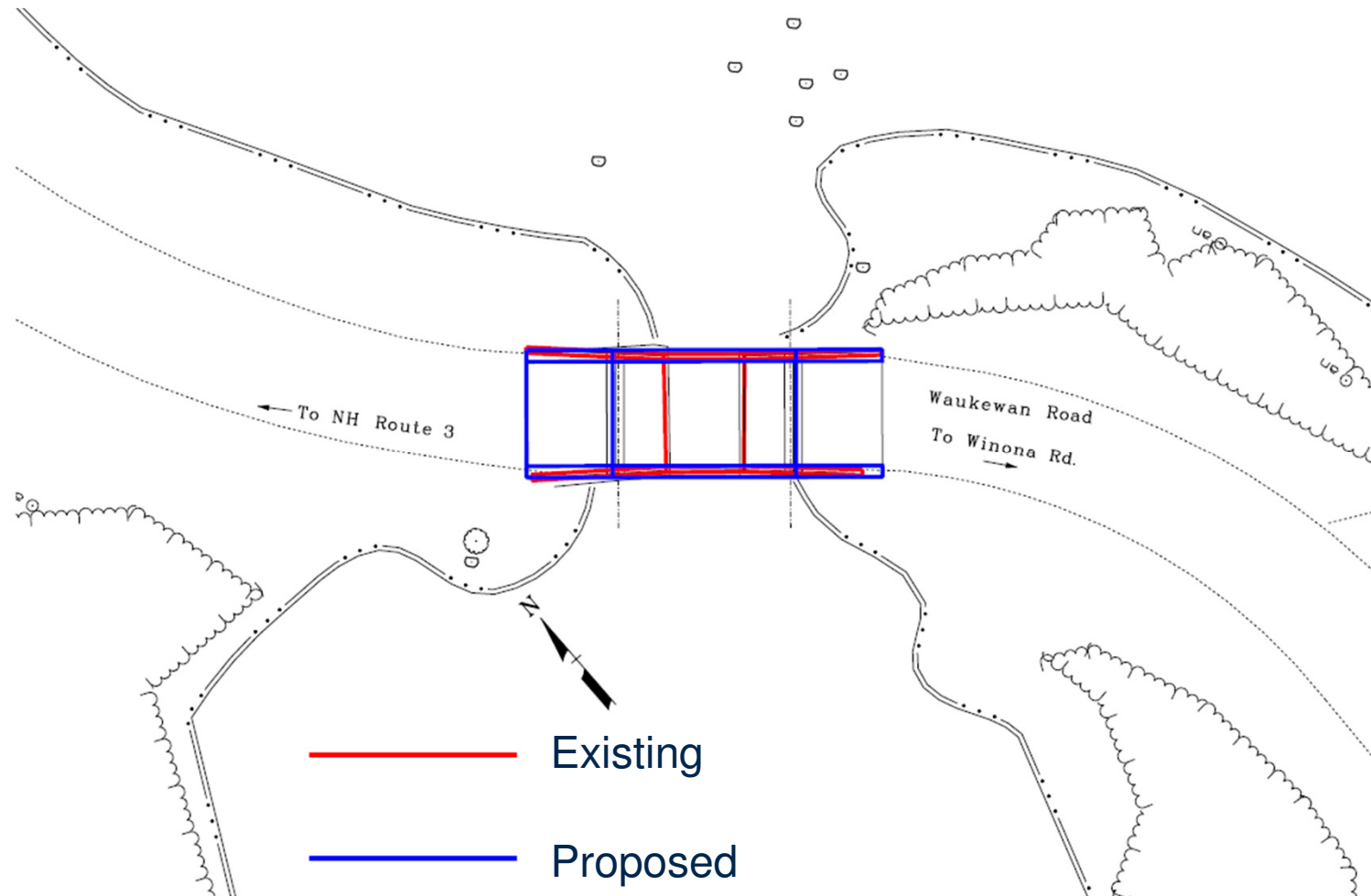




# Bridge Footprint

- Existing stone work maintained
- Same clear span
- Proposed bridge to run over the top of existing stones and bear on shallow abutment
- Approximately same length of curb
  - N/E Side: 60'  $\pm$
  - S/W Side: 56.5'  $\pm$
  - Proposed: 62'  $\pm$

# Bridge Footprint

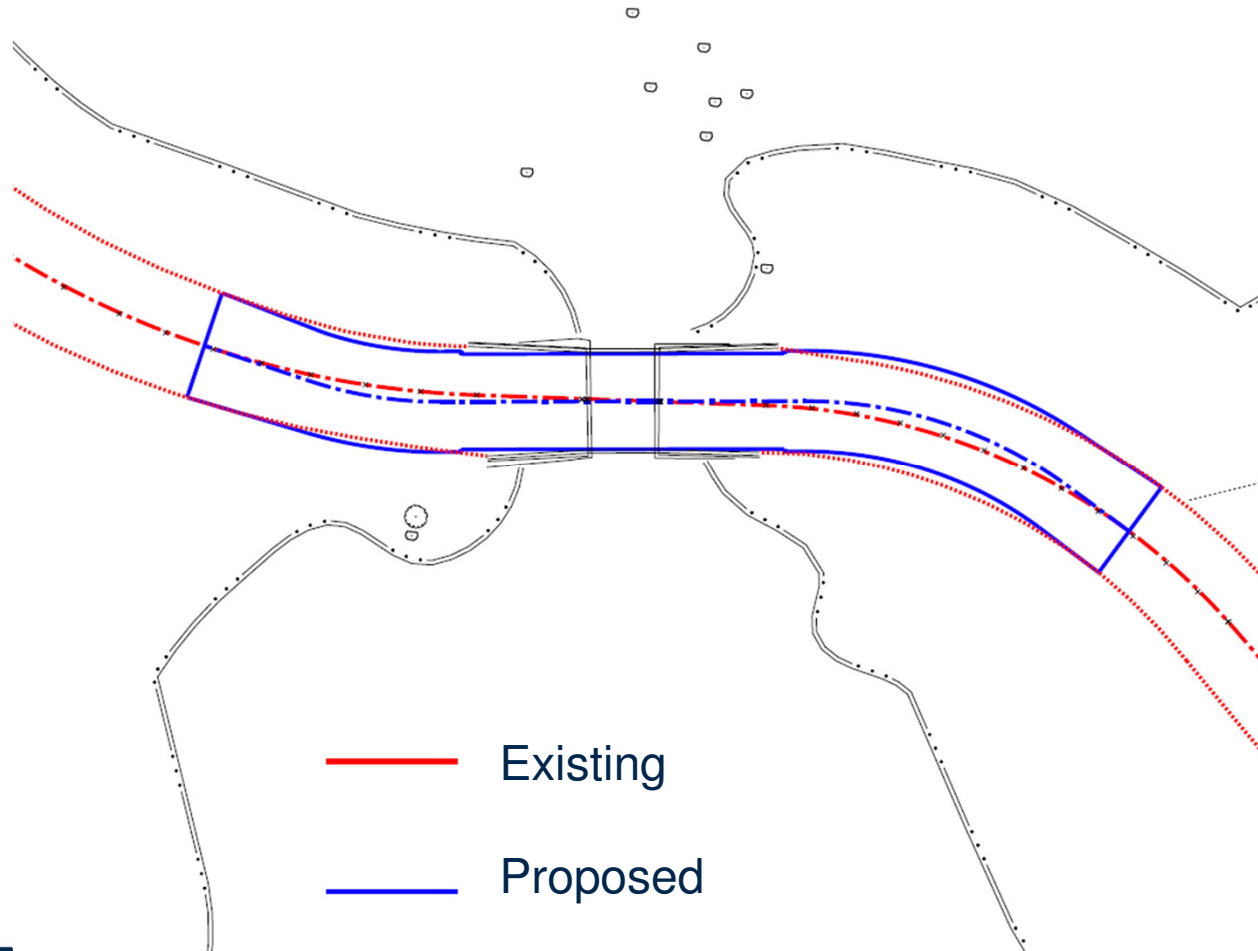




# Roadway

- Existing Roadway Width: 20' ±
- Proposed Roadway Width: Varies
  - Match existing at beginning/end of road reconstruction
  - Two 9'-2" lanes with 6" shoulder on both sides of road
  - Two 9'-2" lanes through bridge and approach slab
- Length of roadway reconstruction: <200'
- Generally match roadway geometry and profile as much as possible
  - Raise road slightly (6" to 8" at bridge)

# Roadway Plan





# Next Steps

- Review project with Natural Resource Agencies to get their input and comments
- Complete NEPA process (National Environmental Policy Act) for environmental permitting
- Develop preliminary plans
- Contract Plans Completed Fall 2019
- Funding in Fiscal Year 2021 (Draft Ten-Year Plan)
- Construction Starts in 2021
- Estimated Construction Cost \$0.6 Million Based on Rehabilitation and Closed Bridge During Construction

# Concerns, Comments, and Questions

